

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (canceled)

2. (previously presented) A method of compression of a medium in a compression chamber of a compressor, comprising:

introducing a liquid, in a state of a spray, into the compression chamber during a compression stroke, wherein the liquid is pressurized and heated before being introduced into the compression chamber, to such an extent that at least a part of the droplets of the spray explodes spontaneously upon entrance into the compression chamber.

3. (previously presented) The method according to claim 2, wherein the liquid is pressurized to such an extent, at the moment of introduction, it has a steam pressure that is above the pressure that, at the moment of introduction, exists in the compression chamber.

4. (previously presented) The method according to claim 2, wherein the liquid is heated to such an extent that, at the moment of introduction, it has a temperature that is above

the boiling point of the liquid for the temperature and the pressure that, at the moment of introduction, exists in the compression chamber.

5. (previously presented) The method according to claim 2, wherein the liquid is heated to such an extent that, at the moment of introduction, it has a temperature that is below the temperature of the medium at the moment of introduction.

6. (canceled)

7. (canceled)

8. (currently amended) The method according to claim ~~[[1]]~~ 2, wherein a mixture of the previously compressed medium and the vaporized liquid is evacuated after the compression, and in that the liquid, after said evacuation, is separated by means of condensation.

9. (previously presented) The method according to claim 8, wherein the liquid is refined from solid contamination and is re-transported to a suitable storing chamber.

10. (currently amended) The method according to claim

[[1]] 2, wherein the liquid that is introduced is water and that the medium that is compressed in the compression chamber is air.

11. (canceled)

12. (currently amended) A compressor with a system for controlling a device for the compression of a medium in [[the]] a compression chamber (15) of ~~a combustion engine or a~~ the compressor, by which a liquid, in [[the]] a state of a spray, is introduced into the compression chamber (15) during a compression stroke, comprising:

means for pressurizing and heating said liquid;

means (10) for introducing the liquid into the compression chamber (15); [[and]]

means (12) for determining the pressure and/or the temperature in the compression chamber (15) [[,]]; and ~~wherein it comprises~~

a control unit (5) that is operatively connected with the means (12) for determining the pressure and/or the temperature and with the means for pressurizing and heating the liquid, and including a computer program which is adapted for the purpose of controlling the means (10) for the introduction of the liquid into the compression chamber (15) upon basis of [[the]] information concerning the pressure and the temperature in the

compression chamber and in accordance with the method according to claim [[1]] 2.

13. (previously presented) The method according to claim 3, wherein the liquid is heated to such an extent that, at the moment of introduction, it has a temperature that is below the temperature of the medium at the moment of introduction.

14. (previously presented) The method according to claim 4, wherein the liquid is heated to such an extent that, at the moment of introduction, it has a temperature that is below the temperature of the medium at the moment of introduction.

15. (canceled)

16. (canceled)

17. (previously presented) The method according to claim 2, wherein a temperature of the liquid, at the introduction thereof into the compression chamber, is below 250 °C.

18. (previously presented) The method according to claim 2, wherein the liquid is water.

19. (canceled)